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Applicant(s):   Donald C. Likes, Russell C. Brown

Assignee: Advanced Micro Devices, Inc.

Title: Communication Scheme-Independent Infrastructure

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Docket No.:	TT3973	Customer No.:	53362

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United States Patent and Trademark Office
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SECOND SUPPLEMENTAL APPEAL BRIEF UNDER 37 CFR § 41.37

Dear Sir:

Applicant submits this Appeal Brief pursuant to the Notice of Appeal filed in this case on June 11, 2007 setting a due date of August 13, 2007 (August 11, 2007 being a Saturday and August 12, 2007 being a Sunday), the Notification dated September 28, 2007 and the Notification dated November 6, 2007. Should the Board continue to interpret the Second Supplemental Appeal Brief as non-compliant, the Board is earnestly requested to telephonically contact the undersigned.

The fee for this Appeal Brief has been paid electronically via the USPTO EFS. The Board is authorized to deduct any other amounts required for this appeal brief and to credit any amounts overpaid to Deposit Account. No. 01-0365.

I.   REAL PARTY IN INTEREST - 37 CFR § 41.37(c)(1)(i)

The real party in interest is the assignee, Advanced Micro Devices, Inc. as named in the caption above and as evidenced by the assignment set forth at Reel 012659, Frame 0504.

II.   RELATED APPEALS AND INTERFERENCES - 37 CFR § 41.37(c)(1)(ii)

Based on information and belief, there are no appeals or interferences that could directly affect or be directly affected by or have a bearing on the decision by the Board of Patent Appeals and Interferences in the pending appeal.

III.   STATUS OF CLAIMS - 37 CFR § 41.37(c)(1)(iii)

Claims 1 - 6, 8 - 15, 17 - 23, 25 and 26 are pending in the application. Claims 1 - 6, 8 - 15, 17 - 23, 25 and 26 stand rejected. Claims 7, 16, and 24 have been cancelled. The rejection of claims 1 - 6, 8 - 15, 17 - 23, 25 and 26 is appealed. Appendix "A" contains the full set of pending claims.

IV.   STATUS OF AMENDMENTS - 37 CFR § 41.37(c)(1)(iv)

No amendments after final have been requested or entered.

V.   SUMMARY OF CLAIMED SUBJECT MATTER - 37 CFR § 41.37(c)(1)(v)

The present invention, as set forth by independent claim 1, relates to a method which includes obtaining a message from a first component of a software system (see e.g., Page 6, lines 12-20), identifying a module to handle scheme-specific communication of the message (see e.g., component 150, Page 5, line 29) and using the module for communicating the message from the first component to a second component of the software system (see e.g., Page 8, lines 25-31). The message communicating includes using a first resource locator to identify the first component and using a second resource locator to identify the second component (see e.g., Page 6, lines 21-25). The first resource locator includes a first resource locator communication scheme indication portion (see e.g., Page 7, lines 16-19), a first resource locator network node name indication portion (see e.g., Page 6, line 28), a first resource locator port identifier indication portion (see e.g., Page 6, line 29) and a first resource locator path indication portion (see e.g., Page 6, lines 21-31). The second resource locator includes a second resource locator communication scheme indication portion (see e.g., Page 7, lines 16-19), a second resource locator network node name indication portion (see e.g., Page 6, line 28), a second resource

locator port identifier indication portion (see e.g., Page 6, line 29) and a second resource locator path indication portion (see e.g., Page 6, lines 21-31).

The present invention, as set forth by independent claim 10, relates to a software system which includes a common interface to communicate between a first component of a software system and a second component of the software system (see e.g., Page 5, line 29), a communication scheme handler to identify a module to handle scheme-specific communication (see e.g., component 150, Page 5, line 29) between the first component and the second component, a first resource locator for the first component and a second resource locator for the second component (see e.g., Page 8, lines 25-31). The first resource locator includes a first resource locator communication scheme indication portion, a first resource locator network node name indication portion (see e.g., Page 6, line 28 and Page 7, lines 16-19), a first resource locator port identifier indication portion (see e.g., Page 6, line 29) and a first resource locator path indication portion (see e.g., Page 6, lines 21-31). The second resource locator including a second resource locator communication scheme indication portion (see e.g., Page 7, lines 16-19), a second resource locator network node name indication portion (see e.g., Page 6, line 28), a second resource locator port identifier indication portion (see e.g., Page 6, lines 21-25) and a second resource locator path indication portion (see e.g., Page 6, lines 21-31).

The present invention, as set forth by independent claim 18, relates to a computer program product which includes obtaining instructions to obtain a message from a first component of a software system (see e.g., Page 5, line 29), identifying instructions to identify a module to handle scheme-specific communication of the message (see e.g., component 150, Page 5, line 29), using instructions to use the module to communicate the message from the first component to a second component of the software system (see e.g., Page 8, lines 25-31), and a computer-readable medium to store the obtaining instructions, the identifying instructions and the using instructions (see e.g., Page 8, lines 25-31). The using instructions include resource locator instructions to use a first resource locator to identify the first component and to use a second resource locator to identify the second component (see e.g., Page 8, lines 25-31). The first resource locator includes a first resource locator communication scheme indication portion (see e.g., Page 7, lines 16-19), a first resource locator network node name indication portion (see e.g., Page 6, line 28), a first resource locator port identifier indication portion (see e.g., Page 6,

line 29) and a first resource locator path indication portion (see e.g., Page 6, lines 21-31). The second resource locator including a second resource locator communication scheme indication portion (see e.g., Page 7, lines 16-19), a second resource locator network node name indication portion (see e.g., Page 6, line 28), a second resource locator port identifier indication portion (see e.g., Page 6, lines 21-25) and a second resource locator path indication portion. (see e.g., Page 6, lines 21-31).

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL - 37 CFR § 41.37(c)(1)(vi)

Claims 1 - 6, 8 - 15, 17 - 23, 25 and 26 stand rejected under 35 U.S.C. § 103(a) as being anticipated by U.S. Patent No. 5,710,908 issued to Man (Man) in view of U.S. Patent No. 6,519,653 issued to Glass (Glass).

VII.   ARGUMENT - 37 CFR § 41.37(c)(1)(vii)

Claims 1 - 6, 8 - 15, 17 - 23, 25 and 26 are allowable under 35 U.S.C. § 103(a) over U.S. Patent No. 5,710,908 issued to Man (Man) in view of U.S. Patent No. 6,519,653 issued to Glass.

The present invention generally relates to a communication infrastructure that allows application programs within a software system to dynamically use services, such as receiving and transmitting messages, through a common application program interface (API). The communication infrastructure allows the specific communication schemes that are being used to be isolated from the application programs such that the application programs are not dependent upon a particular communication scheme.

Man relates to a method of transmitting data between application programs independent of any specific protocol. More specifically, Man discloses a protocol independent method of transmitting a data packet from a first application program executing on a first device which is interfaced to a LAN to a second application program executing on a second device which is interfaced to the LAN. A protocol independent interface (PII) program is initialized which determines which protocols are available for use, assigns an access line to each protocol that is available for use, assigns an access ID to the first application program, and creates mapping

information that indicates a one-to-one correspondence between an access ID/access line pair and a block of protocol specific information which includes a protocol header having predetermined address data. A data packet is sent to the PII program together with the access ID of the first application program and a destination ID for the second application program, and one of the available protocols is selected to transmit the data packet. A block of protocol specific information is retrieved from the mapping information based on the access ID of the first application program and the access line corresponding to the selected protocol, and a transmission packet is formed which includes the data packet, the destination ID, and the retrieved block of protocol specific information. The transmission packet is then transmitted via the LAN.

Glass relates to communicating between agent objects in a computer network. Glass discloses when a first agent has a directive to meet with a second agent to exchange messages, the first agent moves to the host address and port number where the second agent is located. The first agent issues a request to the second agent for an encounter. If available, the second agent creates an encounter object that binds the first agent to the second agent for the duration of the encounter. The first agent, through an invoker, invokes a meet callback function to establish message exchanges between the first agent and the second agent through the encounter object. The first agent then instructs the second agent to terminate the encounter. Termination of the encounter frees up the encounter object for subsequent use within the computer network.

When discussing Applicants' arguments, the Examiner set forth

> in Man, Column 2, lines 33 – 37, the reference teaches an access ID to identify the source application and a destination ID to identify the destination application. So by itself Man teaches the identifiers of both components. Glass teaches a system of sending messages between applications that includes identifying components using universal resource identifiers as seen in Column 4, lines 4 – 8 and lines 23 – 26. These URIs identify the objects or applications in the system uniquely. They include all of the name, path, and port information included in the claimed limitation. So the limitations of the claim would be met by using Glass' system for identifying applications in the system to improve Man's teaching of access and destination IDs. (Final Office action dated April 18, 2007, Page 5.)

The portion of Man to which the Examiner cites sets forth:

A data packet is sent to the PII program together with the access ID of the first application program, and one of the available protocols is selected to transmit the data packet. (Man, Col. 2, lines 33 – 37.)

The portions of Glass to which the Examiner refers sets forth:

A conventional URL (uniform resource locator) syntax may also be used to refer to the object. For example, the new remote object with alias "Store1" is located at a remote host or IP address of "dallas" at port number "8000" with the above construction syntax. (Glass, Col. 4, lines 4 – 8.).

The Java class, its virtual class, and virtual object/agent 100 reside in a first host address and port number 102 (ALPHA:4000). A reference 104 is constructed that refers to the host address and port number (BETA:8000) and alias (Store1) of the new remote agent to be constructed (Glass, Col. 4, lines 22 – 26).

However, Glass does not disclose or suggest a resource locator which includes a communication scheme indication portion as disclosed and claimed in the present application. These deficiencies of Glass are not cured by Man. Accordingly, a combination of Man and Glass would not enable a communication infrastructure that allows the specific communication schemes that are being used to be isolated from the application programs such that the application programs are not dependent upon a particular communication scheme, as is the case with the present invention.

However, neither of these portions of Glass, nor anywhere else in Glass is there any teaching or suggestion of communicating a message from the first component to a second component where the communicating includes using *a first resource locator to identify the first component and using a second resource locator to identify the second component* much less such communicating where the first resource locator includes *a first resource locator communication scheme indication portion*, a first resource locator *network node name indication portion*, a first resource locator port identifier indication portion and a first resource locator path indication portion and the second resource locator includes *a second resource locator communication scheme indication portion*, a second resource locator *network node name indication portion*, a second resource locator port identifier indication portion and a second resource locator path indication portion, as required by claims 1, 10 and 18.

More specifically, Man and Glass, taken alone or in combination, do not teach or suggest a method which includes communicating a message from a first component to a second component where the message communicating includes using *a first resource locator to identify the first component and using a second resource locator to identify the second component*, much less where the first resource locator includes *a first resource locator communication scheme indication portion*, a first resource locator network node name indication portion, a first resource locator port identifier indication portion and a first resource locator path indication portion; and the second resource locator includes *a second resource locator communication scheme indication portion*, a second resource locator *network node name indication portion*, a second resource locator port identifier indication portion and a second resource locator path indication portion, all as required by claim 1. Accordingly, claim 1 is allowable over Man and Glass. Claims 2 - 9 depend from claim 1 and are allowable for at least this reason.

Additionally, Man and Glass, taken alone or in combination, do not teach or suggest a software system which includes a first resource locator for a first component and a second resource locator for a second component where the first resource locator includes *a first resource locator communication scheme indication portion, a first resource locator network node name indication portion, a first resource locator port identifier indication portion* and a first resource locator path indication portion and the second resource locator includes *a second resource locator communication scheme indication portion*, a second resource locator *network node name indication portion*, a second resource locator port identifier indication portion and a second resource locator path indication portion, all as required by claim 10. Accordingly, claim 10 is allowable over Man and Glass. Claims 11 - 17 depend from claim 10 and are allowable for at least this reason.

Additionally, Man and Glass, taken alone or in combination, do not teach or suggest a computer program product which includes using instructions to use a module to communicate the message from a first component to a second component of the software system where the using instructions include resource locator instructions to use *a first resource locator to identify the first component and to use a second resource locator to identify the second component*, and wherein the first resource locator includes *a first resource locator communication scheme indication portion*, a first resource locator network node name indication portion, a first resource

locator port identifier indication portion and a first resource locator path indication portion and the second resource locator includes a second *resource locator communication scheme indication portion*, a second resource locator *network node name indication portion*, a second resource locator port identifier indication portion and a second resource locator path indication portion, all as required by claim 18. Accordingly, claim 18 is allowable over Man and Glass. Claims 19 - 26 depend from claim 18 and are allowable for at least this reason.

VIII. CLAIMS APPENDIX - 37 CFR § 41.37(c)(1)(viii)

A copy of the pending claims involved in the appeal is attached as Appendix A.

IX. EVIDENCE APPENDIX - 37 CFR § 41.37(c)(1)(ix)

None

X. RELATED PROCEEDINGS APPENDIX - 37 CFR § 41.37(c)(1)(x)

There are no related proceedings.

XI. CONCLUSION

For the reasons set forth above, Applicant respectfully submits that the rejection of pending Claims 1 - 6, 8 - 15, 17 - 23, 25 and 26 is unfounded, and requests that the rejection of claims 1 - 6, 8 - 15, 17 - 23, 25 and 26 be reversed.

I hereby certify that this correspondence is being electronically submitted to the COMMISSIONER FOR PATENTS via EFS on December 6, 2007.

/Stephen A. Terrile/
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Respectfully submitted,

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1.   A method comprising:

obtaining a message from a first component of a software system;

identifying a module to handle scheme-specific communication of the message; and

using the module for communicating the message from the first component to a second

component of the software system, the communicating the message including

using a first resource locator to identify the first component and using a second

resource locator to identify the second component, the first resource locator

including a first resource locator communication scheme indication portion, a first

resource locator network node name indication portion, a first resource locator

port identifier indication portion and a first resource locator path indication

portion, the second resource locator including a second resource locator

communication scheme indication portion, a second resource locator network

node name indication portion, a second resource locator port identifier indication

portion and a second resource locator path indication portion.

2.   The method of claim 1 wherein

the communicating the message comprises using communication scheme-specific

programming code of the module, wherein

the first component does not comprise the communication scheme-specific

programming codes; and

the second component does not comprise the communication scheme-specific

programming code.

3.   The method of claim 1 wherein

the using the module for communicating the message comprises at least one of a group

consisting of the following:

using a communication scheme-specific transmitter for transmitting the message;

and

using a communication scheme-specific receiver for receiving the message.

4.   The method of claim 1 wherein

the identifying the module comprises calling a communication scheme handler to identify

        the module.

5.   The method of claim 4 wherein

the identifying the module comprises at least one of a group consisting of the following:

        requesting a transmitter server to identify the module; and

        requesting a receiver server to identify the module.

6.   The method of claim 1 wherein

the communicating the message comprises using a common interface for the first

        component and the second component.

8.   The method of claim 1 wherein

the communicating the message comprises:

        using a first communication scheme from the first resource locator for

                communicating with the first component; and

        using a second communication scheme from the second resource locator for

                communicating with the second component.

9.   The method of claim 8 wherein

the first and second communication schemes are the same.

10.   A software system comprising:

a common interface to communicate between a first component of a software system and

        a second component of the software system; and

a communication scheme handler to identify a module to handle scheme-specific

        communication between the first component and the second component;

a first resource locator for the first component, the first resource locator including a first

        resource locator communication scheme indication portion, a first resource locator

        network node name indication portion, a first resource locator port identifier

        indication portion and a first resource locator path indication portion; and

a second resource locator for the second component, the second resource locator

        including a second resource locator communication scheme indication portion, a

        second resource locator network node name indication portion, a second resource

        locator port identifier indication portion and a second resource locator path

        indication portion.

11.   The software system of claim 10 wherein

the module comprises communication scheme-specific programming code;

the first component does not comprise communication scheme-specific programming

        code; and

the second module does not comprise communication scheme-specific programming

        code.

12.   The software system of claim 10, wherein

the first component uses the common interface to request the module to communicate a

        first message to the second component; and

the second component uses the common interface to request the module to communicate

        a second message to the first component.

13.   The software system of claim 10 wherein

the module corresponds to at least one of a group consisting of the following:

a communication scheme-specific transmitter; and

a communication scheme-specific receiver.

14.   The software system of claim 10 further comprising:

a communication scheme handler to identify the module.

15.   The software system of claim 10 further comprising:

a communication scheme handler to identify the module using at least one of a group

        consisting of the following:

        a transmitter server; and

        a receiver server.

17.   The software system of claim 10 wherein

the first resource locator comprises a first communication scheme for the first

   component; and

the second resource locator comprises a second communication scheme for the second

   component.

18.   A computer program product comprising:

obtaining instructions to obtain a message from a first component of a software system;

identifying instructions to identify a module to handle scheme-specific communication of

   the message;

using instructions to use the module to communicate the message from the first

   component to a second component of the software system, the using instructions

   including resource locator instructions to use a first resource locator to identify

   the first component and use a second resource locator to identify the second

   component, the first resource locator including a first resource locator

   communication scheme indication portion, a first resource locator network node

   name indication portion, a first resource locator port identifier indication portion

   and a first resource locator path indication portion, the second resource locator

   including a second resource locator communication scheme indication portion, a

   second resource locator network node name indication portion, a second resource

   locator port identifier indication portion and a second resource locator path

   indication portion; and

a computer-readable medium to store the obtaining instructions, the identifying

   instructions and the using instructions.

19.   The computer program product of claim 18 wherein

the using instructions comprise:

      scheme-specific instructions to use communication scheme-specific programming

         code of the module, wherein

            the first component does not comprise the communication scheme-specific

               programming code; and

the second component does not comprise the communication scheme-specific programming code;

and

the computer readable medium further stores the scheme-specific instructions.

20.   The computer program product of claim 18 wherein

the using instructions comprise:

        transmitting instructions to use a communication scheme-specific transmitter to

            transmit the message; and

        receiving instructions to use a communication scheme-specific receiver to receive

            the message;

and

the computer-readable medium further stores the transmitting instructions and the

        receiving instructions.

21.   The computer program product of claim 18 wherein

the identifying instructions comprise:

        calling instructions to call a communication scheme handler to identify the

            module;

        and

the computer-readable medium further stores the calling instructions.

22.   The computer program product of claim 18 wherein

the identifying instructions comprise:

        transmitter requesting instructions to request a transmitter server to identify the

            module; and

        receiver requesting instructions to request a receiver server to identify the module;

and

the computer-readable medium further stores the transmitter requesting instructions and

        the receiver requesting instructions.

23.   The computer program product of claim 18 wherein
the instructions comprise:

    interface using instructions to use a common interface to communicate with the
        first component and the second component;

and

the computer-readable medium further stores the interface instructions.

25.   The computer program product of claim 18 wherein
the using instructions further comprise:
scheme instructions to

    use a first communication scheme from the first resource locator to communicate
        with the first component; and

    use a second communication scheme from the second resource locator to
        communicate with the second component.

26.   The computer program product of claim 25 wherein
the first and second communication schemes are the same.

EVIDENCE APPENDIX - 37 CFR § 41.37(c)(1)(ix)

None

RELATED PROCEEDINGS APPENDIX - 37 CFR § 41.37(c)(1)(x)

There are no related proceedings.